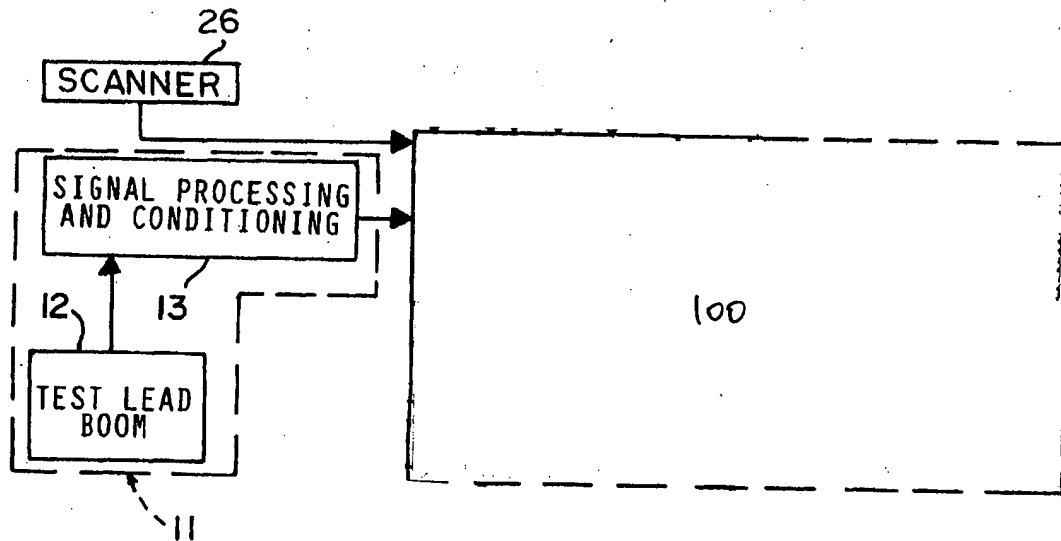


FIG. 1A

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**FIG. 10**

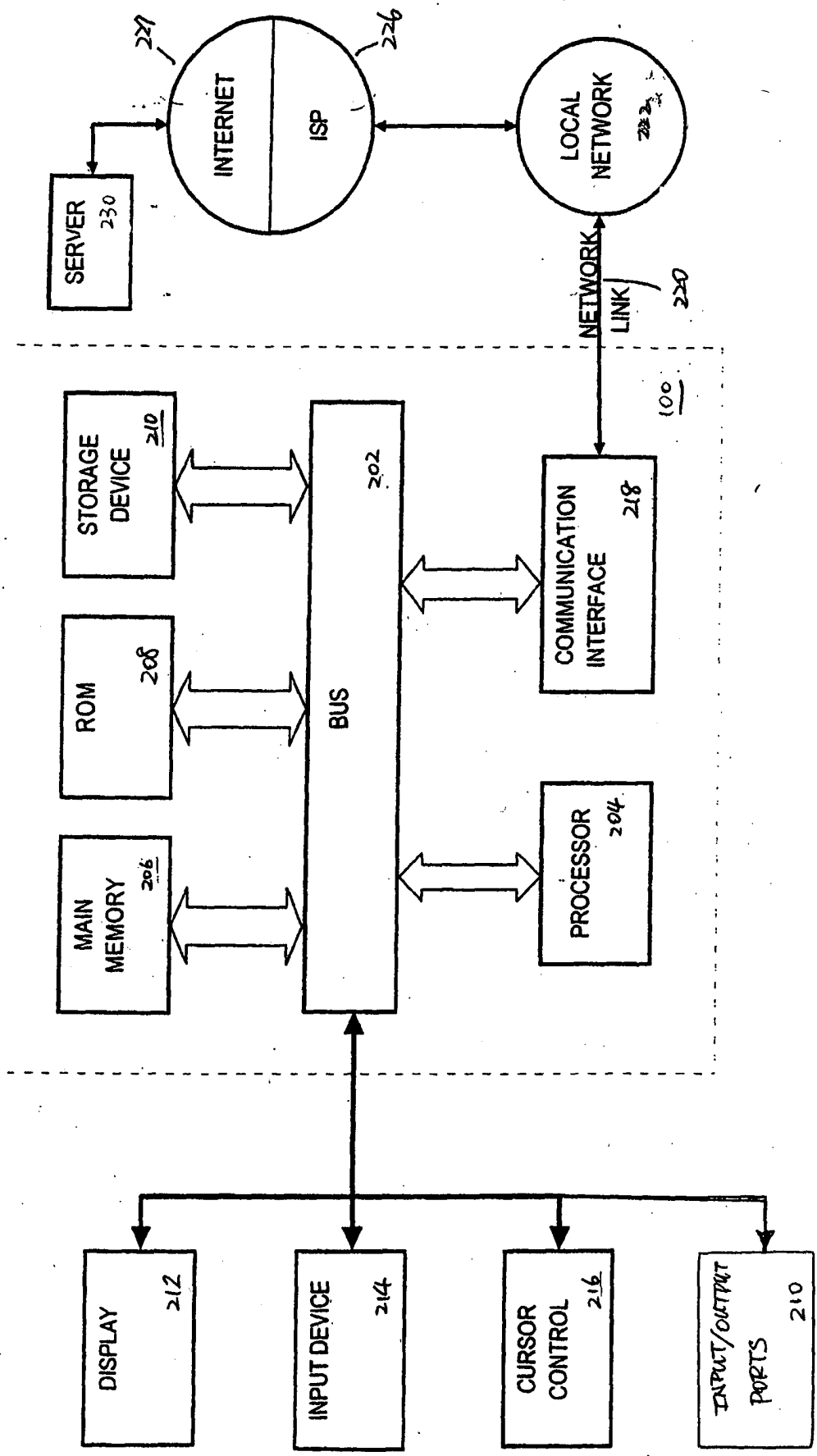


FIG. 1C

36

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## VEHICLE

## IDENTIFICATION

TEST  
ANALYSIS

## SYMPTOMS

## SYMPTOM

BATTERY GOES DEAD  
 NO START, NO OR SLOW CRANK  
 NO START, CRANKS OK  
 NO START, SLOW CRANK  
 HARD START, CRANKS OK  
 HARD START, CRANKS AND DIES  
 ENG STARTS AT IDLE/DECEL/BRKG  
 ENG DIES AT ACCEL/CRUISE  
 HESITATION/STUMBLD/SAG  
 MISFIRE  
 RUNS ROUGH  
 IDLE SPEED LOW  
 IDLE SPEED HIGH  
 IDLE SPEED HUNTING  
 LACK OF POWER/SLUGGISH  
 SURGES/CHUGGLES  
 POOR FUEL ECONOMY  
 EXHAUST ODOR/BLACK SMOKE  
 BACKFIRE THRU INTAKE/EXH

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## CAUSE

ACCESS VEHICLE FAULT CODES  
 LEAKING SUPCHGR INTAKE GAS  
 INJECTOR DRIVER/INJ FLOW  
 VACUUM LEAK  
 DEFECTIVE PCM BOARD  
 EGR SYSTEM  
 IAC CIRCUIT  
 IGNITION SYSTEM  
 MAF CIRCUIT  
 GROUNDED OR BROKEN MOUNT  
 THROTTLE BORE COKING  
 TP CIRCUIT  
 INCORRECT FUEL PRESS/VOLUME  
 POOR FUEL QUALITY  
 TCC WILL NOT DISENGAGE  
 COMPRESSOR/VALVE TIMING

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## TEST PROCEDURE

FAULT CODE RETRIEVAL  
 QUICK TIP  
 FUEL INJECTOR-MFI  
 VACUUM LEAK  
 QUICK TIP  
 EGR  
 IDLE AIR CONTROL SOLENOID  
 ENGINE RUNNING-DIS AND MFI  
 MASS AIR FLOW SENSOR  
 QUICK TIP  
 QUICK TIP  
 THROTTLE POSITION SENSOR  
 FUEL DELIVERY-MFI  
 QUICK TIP  
 QUICK TIP  
 ENGINE MECHANICAL-DIS

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## RANK

10  
 8  
 7  
 5  
 4  
 4  
 4  
 4  
 4  
 4  
 3  
 3  
 3  
 2  
 2  
 2  
 1

1993 PONTIAC BONNEVILLE 3.8 1

FIG. 2

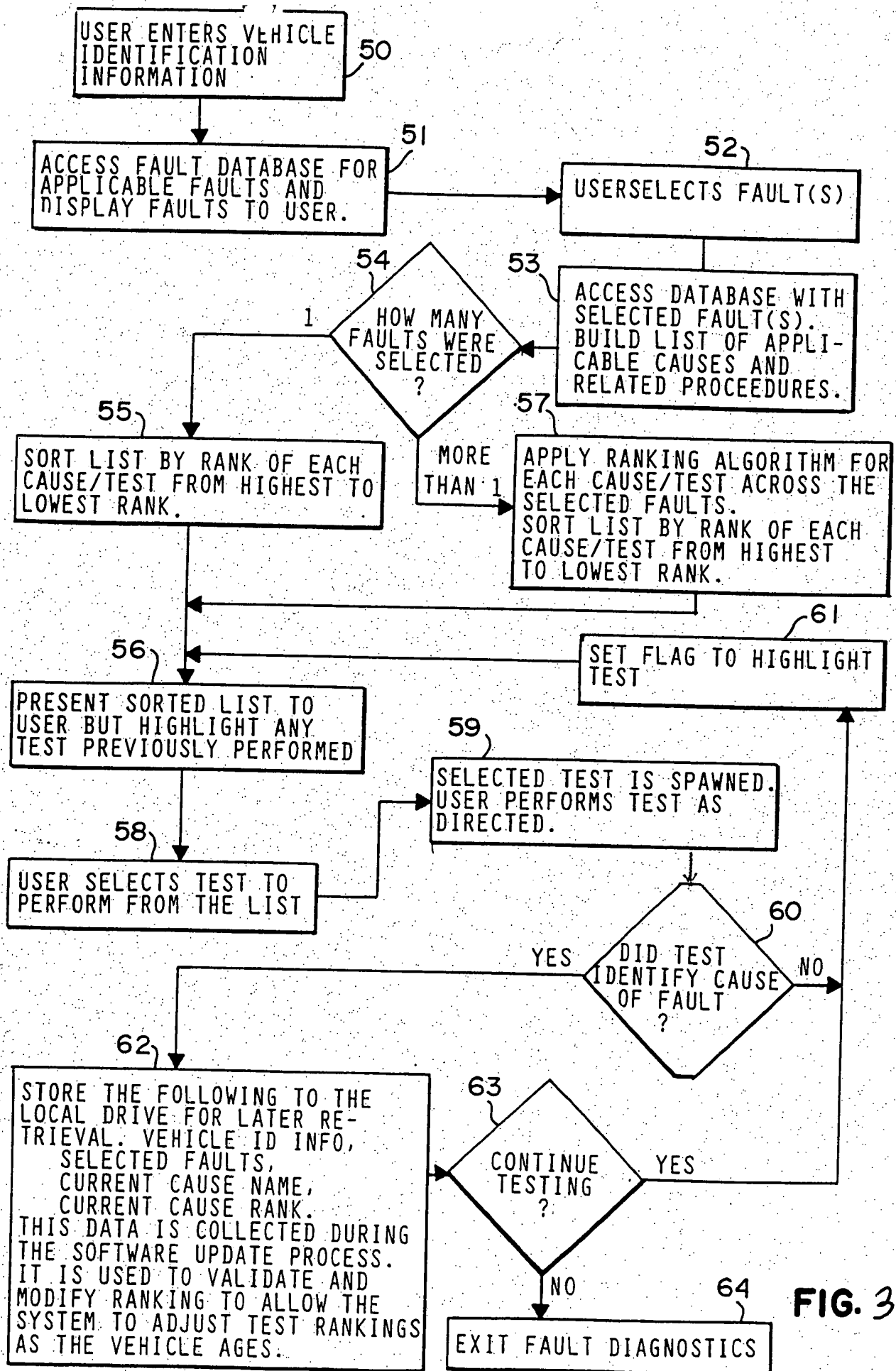


FIG. 3

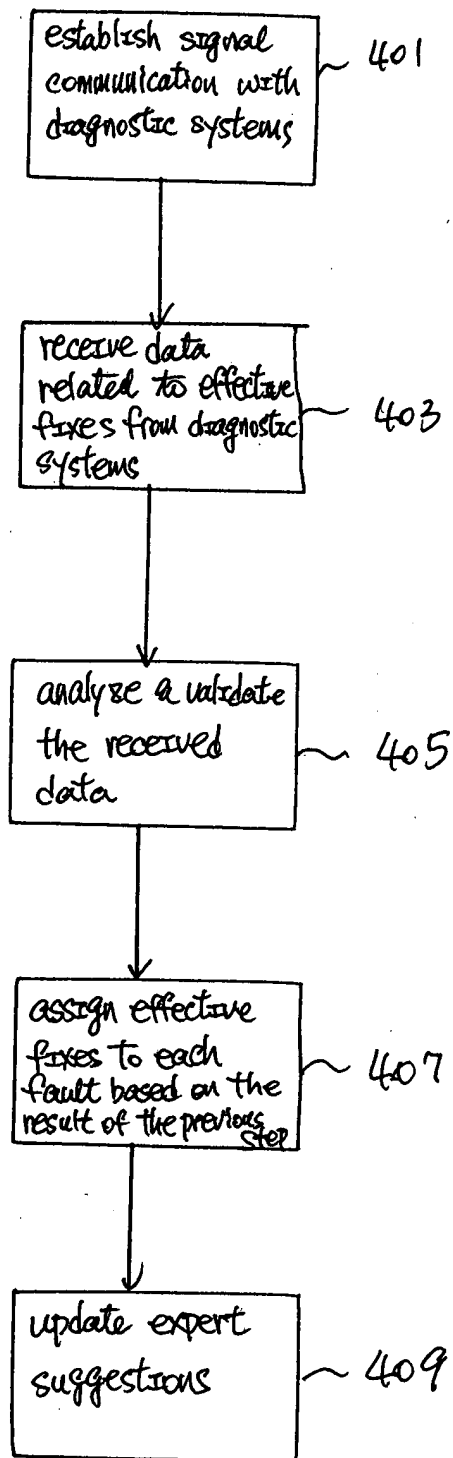


FIG. 4